

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REVOCATION OF PRIOR POWERS OF ATTORNEY  
and  
NEW POWER OF ATTORNEY**

The undersigned, authorized and acting on behalf of Azdel, Inc. (now Hanwha Azdel, Inc.), a Delaware corporation having a place of business at 2000 Enterprise Drive, Forest, VA 24551 US, and its domestic and foreign related entities, hereby revokes all powers of attorney previously given in the patent applications and patents listed on Schedule A appended hereto, and hereby appoints all practitioners of RHODES DONAHOE, PC associated with Customer Number

**101012**

as assignee's attorneys or agents with full power of substitution to take any and all action necessary with regard to the patent application referenced herein, and with regard to any patent, priority, divisional, continuing, continuation-in-part, substitute, renewal or reissue application(s), international applications or foreign equivalents thereof.

Please address all telephone calls to Christopher Rhodes (Reg. No. 47,022) at (540) 904-0398.

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**101012**

Date: 6/5, 2012

For AZDEL, INC. (now HANWHA AZDEL, INC.)

By: Tom Ebeling

Name: Thomas Ebeling, Ph.D.

Title: Vice-President, Technology +  
Manufacturing Operations

## SCHEDULE A

FILE #	TITLE	APPLICATION #	PATENT NO. or PUBLICATION NO.	REEL/FRAME NO.	RECORDATION DATE	ASSIGNEE
HANAZD-700119	HIGH PERFORMANCE VEHICLE BUMPER	07/834,016	N/A	008461/0980	4/17/1997	Azdel, Inc.
HANAZD-700130	HIGH PERFORMANCE VEHICLE BUMPER	07/981,906	5629574	008461/0980	4/17/1997	Azdel, Inc.
HANAZD-700219	METHOD OF MAKING A HOLLOW CORE STRUCTURAL MEMBER	07/958,887	5348798	006375/0194	12/30/1992	Azdel, Inc.
HANAZD-700319	FIBER REINFORCED FUNCTIONALIZED POLYOLEFIN COMPOSITES	08/144,847	N/A	007421/0739	4/7/1995	Azdel, Inc.
HANAZD-700330	FIBER REINFORCED FUNCTIONALIZED POLYOLEFIN COMPOSITES	08/396,122	5643589	007421/0739	4/7/1995	Azdel, Inc.
HANAZD-700419	POLYPROPYLENE FIBER COMPOSITES	08/152,714	5627226	014515/0190	4/14/2004	Azdel, Inc.
HANAZD-700610	I-SECTION AUTOMOTIVE BUMPER FORGED FROM MINERAL FILLED GLASS MAT THERMOPLASTIC (GMT) COMPOSITE	09/511,574	6286879	010700/0924	3/20/2000	Azdel, Inc.
HANAZD-700719	Glass mat thermoplastic composite	10/636,869	20050095415	01456/0785	10/30/2003	Azdel, Inc.
HANAZD-700730	Glass mat thermoplastic composite	11/141,238	7972685	016641/0438	5/31/2005	Azdel, Inc.
HANAZD-700816	TWIN SHEET THERMOFORMING PROCESS	10/890,505	7157034	015100/0979	3/15/2004	Azdel, Inc.
HANAZD-700820	TWIN SHEET THERMOFORMING PROCESS	10/981,338	7255391	015100/0979	3/15/2004	Azdel, Inc.
HANAZD-700919	DECORATIVE INTERIOR SOUND ABSORBING PANEL	10/820,205	7318498	015058/0555	8/9/2004	Azdel, Inc.
HANAZD-701019	FIBER REINFORCED THERMOPLASTIC SHEETS WITH SURFACE COVERINGS	10/810,739	7244501	05816/0077	3/24/2005	Azdel, Inc.
HANAZD-701030	FIBER REINFORCED THERMOPLASTIC SHEETS WITH SURFACE COVERINGS	11/441,709	7682697	017935/0956	5/26/2006	Azdel, Inc.
HANAZD-701040	FIBER REINFORCED THERMOPLASTIC SHEETS WITH SURFACE COVERINGS	13/427,131	N/A	017935/0956	5/26/2006	Azdel, Inc.
HANAZD-701119	COMPOSITE THERMOPLASTIC SHEETS INCLUDING NATURAL FIBERS	10/983,535	7431980	015979/0493	11/8/2004	Azdel, Inc.

## SCHEDULE A

FILE #	TITLE	APPLICATION #	PATENT NO. or PUBLICATION NO.	REEL/FRAME NO.	RECORDATION DATE	ASSIGNEE
HANAZD-701219	Fiber reinforced thermoplastic composite including mineral fillers	11/058,776	20060132047	016288/0385	2/16/2005	Azdel, Inc.
HANAZD-701319	<u>COMPOSITE THERMOPLASTIC SHEETS INCLUDING AN INTEGRAL HINGE</u>	11/112,651	7482048	016505/0102	4/22/2005	Azdel, Inc.
HANAZD-701419	<u>LIGHTWEIGHT COMPOSITE THERMOPLASTIC SHEETS INCLUDING REINFORCING SKINS</u>	11/278,748	7759267	017425/0260	4/5/2006	Azdel, Inc.
HANAZD-701519	<u>Method of increasing loft in a porous fiber reinforced thermoplastic sheet</u>	11/437,997	20070269644	017922/0050	5/19/2006	Azdel, Inc.
HANAZD-701810	<u>FIBER REINFORCED THERMOPLASTIC COMPOSITE MATERIAL</u>	11/645,979	20070196537	027839/0376	3/10/2012	Azdel, Inc.
HANAZD-701910	<u>Lightweight thermoplastic composite including reinforcing skins</u>	11/784,515	20070269645	027839/0393	3/10/2012	Azdel, Inc.
HANAZD-702010	<u>Panel materials for vehicles and enclosures</u>	11/799,752	20080001129	N/A/	N/A	Azdel, Inc.
HANAZD-702210	<u>Enhanced sound absorption in thermoplastic composites</u>	11/805,259	20080000869	027839/0448	3/10/2012	Azdel, Inc.
HANAZD-702210	<u>Moldable composite sheet with improved adhesion at elevated service temperatures</u>	11/799,450	20080032094	027893/0445	3/10/2012	Azdel, Inc.
HANAZD-702310	<u>Thermoplastic composite with improved thermal and mechanical properties</u>	11/893,613	20080070019	027839/0436	3/10/2012	Azdel, Inc.
HANAZD-702410	<u>Lightweight glass fiber reinforced thermoplastic material</u>	12/070,372	20090011210	027893/0479	3/10/2012	Azdel, Inc.
HANAZD-702519	<u>LIGHTWEIGHT THERMOPLASTIC COMPOSITE INCLUDING BI-DIRECTIONAL FIBER TAPES</u>	12/002,518	2009015522	027839/0466	3/10/2012	Azdel, Inc.
HANAZD-702619	<u>Thermoplastic composite material with improved smoke generation, heat release, and mechanical properties</u>	12/220,410	20100021718	027837/0515	3/9/2012	Azdel, Inc.
HANAZD-702620	<u>Thermoplastic composite material with improved smoke generation, heat release, and mechanical properties</u>	13/416,617	N/A	027837/0515	3/9/2012	Azdel, Inc.